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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/817,643

04/02/2004

Guo-Hua Zheng

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EXAMINER

TRAN LIEN, THUY

ART UNIT

PAPER NUMBER

1789

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DELIVERY MODE

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/817,643	<b>Applicant(s)</b> ZHENG ET AL.	
	<b>Examiner</b> Lien T. Tran	<b>Art Unit</b> 1789	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 07 February 2011.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,3-5,10,13,14,16-23,32 and 56-58 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3-5,10,13,14,16-23,32 and 56-58 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

Claims 1,3-5,10,13-14,16-23,32 and 56-58 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

In the amendment filed on 2/7/11, applicant amends claim 1 to include the limitations of "a 1% mixture of the dietary composition and water is stable and has a viscosity of about 100 cps or less and the fiber composition has a fat content of .11% or less. These limitations are not supported by the original disclosure. Page 12 of the specification discloses that "a solution containing 1% beta glucan would have a viscosity of about 1-1000cps at 25 degree C". The disclosure is directed at the beta glucan only, not the dietary composition comprising the beta glucan. The beta glucan compound is different from the fiber composition containing the beta glucan compound. There is no disclosure of the viscosity in the range now claimed for the fiber composition. The fiber composition can contain other component, not solely the beta glucan. For example, claim 2 recites that the fiber composition can contain only 30% beta glucan. There is no disclosure of the .11% of fat or less as now claimed. Claims 13,14 and 32 have the same problem.

Claims 1, 3-5, 10,13-14,16-23,32,56-58 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable

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one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

The claims are directed to a dietary fiber composition comprising beta glucan composition. The beta glucan component can make up only 30,40 and 70% of the composition as recited in claims 3-5. The specification does not teach what other ingredients can be used to make the fiber composition. It is not clear if the beta glucan component is the only component of the fiber composition or are there other ingredients making up the composition. Since the specification is not clear, it is questionable if one skilled in the art can make the composition as claimed.

Claims 1,3-5,10, 13-14, 16-23, 32, 56-58 are rejected under 35 U.S.C. 103(a) as being unpatentable over Morgan ( 2003/0154974)

Morgan discloses a fiber composition from cereal grain such as barley and oats. The composition comprises beta glucan. The beta glucan gel , once formed, is washed with water to remove starch or protein or starch or protein that may have been hydrolyse. Starch may be removed by adding amylase; it is preferable during the glucan extraction to add an enzyme to reduce the average molecular weight of the glucan. The enzyme is cellulase. The low molecular weight beta glucan has an average molecular weight in the range of 5000-200000 daltons ( 5-200kd). ( see paragraphs 0013, 0014, 0015, 0017, 0025, 0026, 0038.

Morgan discloses a fiber composition having the molecular weight as claimed. Morgan is silent with respect to the viscosity and the fat content. However, the fiber composition in Morgan is prepared by substantially the same method as disclosed and

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the composition has a molecular weight within the range claimed; thus, it is obvious the composition will have the same viscosity as claimed. As to the fat content, it is known in the art that different variety of grains will have different lipid content, thus, the fat content can vary depending on the type of grain used. Furthermore, it is known in the art to remove fat using agent such as alcohol. It would have been obvious to one skilled in the art to remove the fat in the Morgan product using known agent when it is desired to obtain product having very low fat content. This would have been within the skill of one in the art. As to the composition being stable, the beta glucan composition disclosed by Morgan has a molecular weight within the range claimed; thus, it is expected the viscosity is within the range claimed. Thus, whatever property results from the viscosity and molecular weight, it is expected the same result is obtained in the Morgan product.

Morgan does not disclose the protein content as claimed, the % of beta-glucan in the fiber composition, specific foods and the formulation for such foods as claimed.

Morgan discloses in paragraph 0024, "prior to concentrating of beta-glucan, it is preferable to remove starch and/or protein". Morgan also discloses in paragraph 0049, "the final product contains protein and starch; in some cases this less pure form of be-glucan may be the preferred product". Thus, Morgan teaches the removal of protein is optional and not required because he teaches starch or protein is removed and the removal is a preferred embodiment. Thus, it would have been obvious to one skilled in the art to not remove the protein when a less pure composition and a high protein content are desired. It would have been obvious to vary the protein content by using

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grains having high protein content or to add protein source to the composition when desiring composition having high protein content for nutrition purposes. Morgan discloses in paragraph 0019 to add the fiber composition to processed foods. Thus, it would have been obvious to one skilled in the art to add the fiber composition to any type of food when desiring to enrich such food with beta glucan to obtain the health benefits provided by beta glucan. Formulations for food products can vary. All the foods claimed are well known in the art; thus, it would have been within the skill of one in the art to determine the formulation for any particular food without undue experimentation. It would have been obvious to vary the amount of glucan in a composition depending on the fiber content wanted for the composition. This would have been an obvious matter of choice.

In the response filed 2/7/11, applicant argues the Morgan product does not have the viscosity within the molecular weight as claimed. Applicant makes reference to the disclosure in example 10. The argument is not persuasive. The comparison pointed out by applicant is not the same. The viscosity claimed is the viscosity of the dietary fiber composition wherein the beta-glucan is only a component of the composition. The viscosity set forth in table 3 of Morgan is the viscosity of only the beta-glucan solid.

With respect to the fat, applicant argues Morgan uses lower temperatures than the temperatures disclosed. This argument is not persuasive. Page 10 of the specification discloses that the beta glucan containing material is treated at temperatures typically about 60-90degree C. About 60 is the same as approximately 60 degree C. As to the fat removal step, the examiner maintains her position that fat

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removal is well known in the art and it would have been obvious to remove the fat depending on the fat content wanted for the product. While Morgan does not include an additional fat removal step, Morgan does not teach against such step and the modification to include the step would have been obvious to one skilled in the art depending on the fat content wanted. Fat removal is not an unknown concept; for example, there are fat free milk, whole fat milk and reduced fat milk. Applicant's statement that any attempt to reduce fat may cut against Morgan's desire for a composition with beta glucan which can readily gel is not supported by factual evidence.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lien T. Tran whose telephone number is 571-272-1408. The examiner can normally be reached on Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Keith Hendricks can be reached on 571-272-1401. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

February 16, 2011

/Lien T Tran/

Primary Examiner, Art Unit 1789